

Analog Devices: Setting the Next Capacity Rule

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At 7:01 a.m. on August 19, Analog Devices (ADI) reported third-quarter fiscal 2026 revenue of \$4.02 billion, up 40% year over year, and forecast fourth-quarter revenue of \$4.3 billion, plus or minus \$100 million. The company's call was scheduled for 10:00 a.m. This case uses the release and filings available before the call; it does not use the call or any later information.

The growth revived a familiar question for a semiconductor company that both makes chips and relies on outside suppliers: how should the next cycle of manufacturing capacity be allocated? ADI operated four wafer fabs and sourced more than half of its annual wafer requirements from external foundries. Internal production offered control and a place for proprietary processes. External partners offered access to specialized capacity and a different distribution of fixed-cost risk. Neither route was frictionless or interchangeable.

The assignment

For this classroom exercise, assume you advise ADI's leadership as it sets a **next-cycle capacity-allocation policy and the gates for releasing incremental commitments**. Public information does not show that ADI had a pending fab approval or that a specific project was before its board. You are not being asked to approve a disclosed project.

Recommend how the company should balance existing internal capacity, foundry sourcing and qualification, and staged hybrid investments. Specify what evidence would trigger the next commitment, when leadership should review the policy, and what would lead it to pause or redirect resources. Identify which product or process families should receive priority, while making clear what information you would need before making a site-level decision.

A hybrid system with different exposures

ADI designs analog and mixed-signal semiconductors used across industrial, automotive, communications and consumer markets. Its products span long-lived applications as well as markets with faster demand swings. The company's manufacturing model already combines internal and external production: its FY2025 Form 10-K names wafer fabs in Wilmington, Camas, Beaverton and Limerick, and says more than half of annual wafer requirements are sourced from third-party foundries, including TSMC.

That mix presents a boundary choice rather than a simple make-or-buy switch. An internal fab may protect access to a specialized process, process learning, or supply for a product where timing and control matter. But it commits capital and exposes ADI to underutilization if demand

falls. Foundries pool manufacturing investment across customers, but ADI says third-party supply can expose it to capacity allocation, pricing, delivery, yield and geopolitical risks, including Taiwan Strait disruption affecting TSMC. The public filings do not reveal ADI's product-level sourcing contracts, supplier priority, or how much production can move between internal and external sites.

ADI had made substantial capacity investments before the case date. In 2023, it announced an investment of more than \$1 billion to expand its Beaverton facility, including a larger cleanroom and a planned near-doubling of internal manufacturing output for products at 180nm and above. That is evidence of a prior strategic commitment, not proof of current utilization or a new project awaiting approval.

In January 2025, the U.S. Department of Commerce and ADI announced non-binding preliminary terms for proposed CHIPS Act support of up to \$105 million in aggregate direct funding. The amount covered distinct projects: module production and packaging-test capacity in Chelmsford, Massachusetts, and front-end mature-node fab expansion in Beaverton and Camas, Oregon and Washington. NIST described a proposed 70% capacity increase across the Oregon and Washington projects and onshoring 180nm and 350nm processes. The public record does not allocate the aggregate amount by site, establish a final award or disbursement, or state project cost. The proposed support cannot be treated as cash in hand or as a project-level subsidy estimate.

Growth, utilization and what remains unknown

ADI's third-quarter growth was broad but uneven across end markets. Industrial revenue increased 53% year over year, communications 84%, automotive 16%, and consumer 6%. Management said gross-margin percentage increased 520 basis points in the quarter, primarily reflecting both higher manufacturing fixed-cost utilization associated with increased customer demand and favorable product mix. The filing does not quantify the contribution of either factor separately.

Inventory was \$1.93 billion on August 1, up \$275 million, or 17%, from fiscal year-end. Inventory days were 131, compared with 130 at fiscal year-end. ADI said the dollar increase primarily supported increased demand. These figures may inform a capacity discussion, but neither inventory growth nor stable inventory days establish a shortage, a surplus, or a process-level bottleneck.

The August 19 release added a near-term signal: management forecast fourth-quarter revenue of \$4.3 billion, plus or minus \$100 million, and said demand had strengthened across the portfolio and regions. Guidance describes management's expectation, not realized sales or a multi-year demand run rate. Revenue growth can also reflect product mix and channel timing; reported end markets are not a direct measure of wafer demand by process.

ADI reported \$392.7 million of net additions to property, plant and equipment during the first nine months of FY2026, and guided to full-year capital expenditures of 4%-6% of revenue. At August 1, \$7.4 billion remained available under the share-repurchase authorization; this was authorization capacity, not cash earmarked for buybacks. The board had declared a \$1.10-per-share dividend on August 18. Separately, ADI completed its approximately \$1.5 billion cash acquisition of Empower Semiconductor on July 7. The acquisition was an executed capital deployment; it does not by itself show that capacity investment is financially constrained or less attractive.

The choice is about timing as well as ownership

An internal expansion can take time to equip, qualify and ramp. Foundry sourcing may offer more flexible access, but a nominal source is useful only if the specific product is qualified and capacity is available when needed. A staged policy could preserve the ability to learn before releasing all incremental commitments, but staging may sacrifice scale or arrive too late if the demand signal is real and capacity lead times are long.

Academic research offers competing lenses rather than an ADI answer. A study of 470 semiconductor companies from 1999 to 2018 found that capital investment constrained integrated manufacturers, while fabless-foundry specialization was associated with higher measured pure efficiency and lower cyclicalities. The authors' model is observational and does not establish that ADI should outsource. Research on investment under uncertainty explains the option value of waiting before an irreversible commitment, while also recognizing that delay can forfeit sales, learning and time-to-capacity. Neither result supplies ADI's project economics.

The missing data are consequential: ADI does not disclose utilization by site, product or process; constrained shipments or qualified backlog; internal-versus-foundry cost curves; transferable volumes; foundry reservation terms; equipment lead times; or project-level return hurdles. A useful policy therefore has to say both what to do with available evidence and what additional evidence must precede a larger commitment.

Prepare a recommendation

Recommend one capacity-allocation policy for the next planning cycle. Your recommendation should:

- Identify where internal capacity, foundry sourcing or qualification, and staged investment should be prioritized.
- Define observable demand, utilization, supply-risk and customer-commitment gates for releasing the next tranche; label proposed thresholds as your assumptions, not ADI forecasts.
- State the costs of waiting and the costs of committing too early, including the different time required to qualify a source or expand a fab.
- Explain how you would compare capacity with other uses of capital and what project-level evidence you would request before a site decision.
- Identify conditions that would cause you to change course.

Exhibit 1. Reported revenue growth by end market

End market	Q3 FY2026 year-over-year revenue growth
Industrial	+53%
Automotive	+16%
Communications	+84%
Consumer	+6%

Source: ADI FY2026 Q3 Form 10-Q, Item 2, p. 17, “Revenue Trends by End Market.” Three months ended August 1, 2026 versus August 2, 2025. Company-reported categories and growth rates; the filing notes end-market classification uses multiple data points and can be reclassified.

Exhibit 2. Signals relevant to capacity and capital allocation

Measure	Reported figure	What it does not establish
Q3 FY2026 revenue	\$4,021.9m; +40% y/y	Multi-year demand durability or wafer demand by process
Q4 FY2026 revenue guidance	\$4.3bn ± \$100m	Realized revenue or a committed capacity requirement
Q3 gross-margin change	+520 bps y/y	The separate effects of utilization and product mix
Inventory at Aug. 1	\$1,931.5m; +17% from FY end	A shortage, excess, or site-specific bottleneck
Inventory days	131, versus 130 at FY end	The future direction of supply or demand
Net PP&E additions, first nine months	\$392.7m	Cost or return of a specific next project
FY2026 capital expenditure guidance	4%-6% of revenue	A site-level commitment or amount available for a new project
Repurchase authorization remaining at Aug. 1	\$7.4bn	Cash earmarked for repurchases
Empower acquisition completed July 7	Approximately \$1.5bn cash purchase price	A forward commitment or a comparable fab-project return

Sources: ADI FY2026 Q3 Form 10-Q, Item 2, pp. 16, 18, 20, 22 and Note 11, pp. 14-15; ADI Q3 FY2026 earnings release, pp. 1-2. The release was posted at 7:01 a.m. ET on August 19. Reported figures are reproduced as stated; no project NPV or capacity forecast is implied.

Exhibit 3. ADI's disclosed manufacturing footprint and proposed public support

Evidence	Publicly disclosed	Boundary of the evidence
FY2025 manufacturing model	Four internal wafer fabs; more than half of annual wafer requirements sourced from outside foundries	No product, process, volume, price or utilization split
Supplier-risk disclosure	Capacity, allocation, pricing, delivery, yield, cost and geopolitical exposures	Risks are identified, not quantified by probability or expected loss
2023 Beaverton expansion	More than \$1bn investment; planned near-doubling of internal output for products at 180nm and above	Historical announcement; not a 2026 project approval or measured utilization result
2025 CHIPS preliminary terms	Up to \$105m aggregate proposed funding across distinct projects; Chelmsford module/package-test and Beaverton/Camas front-end mature-node fab scopes	Non-binding; not allocated by site; no final award or disbursement established
Oregon/Washington PMT scope	NIST described proposed 70% capacity increase across Beaverton/Camas and onshoring 180nm/350nm	Proposed scope, not evidence of completion, current bottleneck or project-level return

Sources: ADI FY2025 Form 10-K, Item 1, pp. 7-8 and Item 1A, pp. 11-13; ADI July 26, 2023 company release; U.S. Department of Commerce/NIST January 16, 2025 release and NIST ADI Oregon project page. The 2025 PMT amount covers separate scopes; do not treat it as a site allocation.

Discussion questions

1. What is the strategic boundary decision when ADI already has a hybrid manufacturing system? Which decisions can be made centrally, and which require product/process-specific evidence?
2. How much weight would you give the Q3 growth, Q4 guidance, margin expansion and inventory data? Which conclusions would be premature?
3. Compare an internal-capacity bias, a foundry-network bias and a staged hybrid policy. What risks does each reduce, and what new exposure does each create?
4. What demand and capacity indicators belong in an approval gate? Define their scope, denominator, observation period and decision threshold. Which would be leading indicators and which would confirm realized outcomes?
5. How should ADI account for foundry qualification, geopolitical exposure, capacity lead times and the option value of waiting? What could make delay more costly than commitment?
6. Recommend a policy and state the evidence that would change it. What confidential operating and project information would you request before approving a site-level investment?

Sources and cutoff

Primary sources are ADI's FY2026 Q3 Form 10-Q filed August 19, 2026; the issuer's earnings release posted at 7:01 a.m. ET that morning; its FY2025 Form 10-K; its July 2023 Beaverton announcement; and the U.S. Department of Commerce/NIST January 2025 preliminary-terms release and project page. Academic lenses are Qiao and Wang (2021) and Pindyck (1991); Kapoor (2013) is provisional because only the publisher abstract was reviewed. Full citations, reading depth and exact locators appear in the source register; evidence and caveats appear in the evidence extraction and literature review.

This case is a teaching construction. The assumed leadership assignment and policy alternatives do not represent private ADI deliberations. Information after the stated cutoff is excluded.